



The Infrastructure Metagame:

Scale Resources, Protect Data, Survive Threats

Presented by Peak 10 and Curse



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- Introduction to Peak 10 and Curse
- Challenges
- Game Hosting and Distribution Changes
- Cloud Infrastructure Changes
- Security Changes
- Managed Services Changes
- What It All Means



Peak 10 is an IT infrastructure solutions provider serving customers around the world since 2000...

...enabling innovation and business growth by providing maximum uptime and reliability for critical data and applications through the provision of:

- Secure cloud solutions
- Robust IT infrastructure solutions
- Cost-effective managed services.

Curse is one of the largest gaming-information properties worldwide, attracting more than 55 million monthly users...

...and comprised of community sites, databases, videos, guides, live streaming and eSports teams.

Online gaming enthusiasts depend on Curse for the tools and expertise they need in order to take their gaming to the next level.

- **Scalability**
 - Cost effectively manage spikes – particularly when popular games go viral
- **Protect critical user data**
 - Payment fraud
 - Account takeovers
 - Other security issues
- **Survive threats**
 - Abuse of Network Time Protocol (NTP)
 - TCP based attacks
 - Code tampering
 - Reverse engineering

Faster Speed-to-Market

- Games frequently launched using free-to-play models combined with virtual goods marketplaces or other transaction strategies
- Games launched with fewer features/reduced infrastructure to get into players' hands faster
- New features/functionality deployed via game expansions and downloadable content packs to generate incremental revenue and extend game life

Consumers

- More people online gaming
- More users with access to faster networks
- Demand for richer features, customization
- Increased popularity of mobile gaming
- Viral spread and growth of games

New Technologies

- Cloud – hybrid models, self-provisioning capabilities
- DDOS Protection advancements
- CDN – content delivery networks
- Device technologies – mobile now; Google Glass and wearable gadgets next?

Hosting/Distribution Changes

Traditional Hosting - Dedicated or custom on premise and outsourced data centers

- Slow scaling and deployment
- Inflexible
- Security issues
- Capital intense

Today's Options - Cloud (public/laaS and hybrid models)

- Resources on demand
- More elastic
- More secure
- Lower costs

Cloud Enables Intelligent Development

- Enables developers to develop differently than before
- Use for latency-insensitive computation (AI; take on ambient background tasks, some forms of lighting, physics modeling, fluid dynamics and cloth motion)
- Resource on demand – Can scale rapidly
- Clone virtual machines to the cloud
- Storage

High availability capabilities

- Cloud enables gamers to keep their games online 24 x 7
- Near 100% uptime, SLAs



Selecting the Right Cloud



Public cloud (IaaS)

- Billing flexibility & speed to deployment make it ideal for mobile, social and casual games
- Lower cost of entry & rapid scaling make it ideal for new game launches and test/development



Private cloud

- High level of customization & lower upfront costs than custom hosting/colocation – use for larger scale social games & some MMOGs



Hybrid cloud

- Use of IaaS, Private Cloud, CDN, and Colocation



Selecting Right Cloud Provider

- Quality of service
- Additional services (managed)
- Network reach
- Quality of infrastructure
- On-demand resources to meet fluctuating demand
- Ability to address network and server side latency
- API Capabilities
- Manage “noisy neighbors”
- Security and compliance

Types of Fraud

- Questing
- Virtual currency accumulation
- Pharming
- Phishing
- Power leveling
- Design fraud
- Account takeovers
- Virtual goods scams
- In-game chat logs and other social interactions
- Malicious software

DDOS and NTP Threat Mitigation

- More networks exist in general
- More sophisticated attacks
- More people with skills/knowledge to launch attacks
- Used as smokescreens to cover other criminal activity
 - Masking a simultaneous attack that is probing for vulnerabilities

New Security Management Solutions

- Multi-layer security
- Threat information and analysis
- Evolution of technology to respond to attacks
- Integration with BC/DR



PCI Compliance

- More purchase points and transactions
- Increased and more defined regulations as to how transactions are handled
- IDPS and firewalls
- Meeting requirements enhances security
- DR component to PCI compliance – can be met with PCI-compliant, cloud-based DR solution

Managed Services Changes

Providers — more prevalent and capable

- System Admin
- Security
- Data Protection
- BC/DR



Why It Matters

- Companies are outsourcing to save money
- To game developers infrastructure management is an afterthought

Use of Managed Services to Augment Staff

- Outsource can be cost-effective versus staffing
- MSP's offer broad skillsets compared to staffing

Why It Matters

- Developers pulling double-duty as sys admins
- Gaming infrastructure is 24x7



...to manage scalability, protect critical user data and survive threats, you must:

- Leverage new flexible technologies
- Increase perimeter security
- Replicate data for backups and DR
- Evolve with infrastructure



Questions?

What else can we tell you?

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